

**An examination of
sites receiving
asbestos-contaminated
vermiculite ore from
Libby, Montana**

National Asbestos, Exposure Review

Toll-free Information: 1-888-422-8737

www.atsdr.cdc.gov

The Agency for Toxic Substances and Disease (ATSDR) is a federal public health agency under the Department of Health and Human Services that addresses toxic substances in the environment and how they affect people.

ATSDR is reviewing locations around the country that received shipments of vermiculite from a mining operation in Montana. The contaminated vermiculite came from Libby, MT, and was shipped as a commercial product to approximately 244 locations around the U.S. for processing and packaging. ATSDR will initially be reviewing 30 of the locations.

The review is being done to determine whether the people could have been or are being exposed to the asbestos contained in the vermiculite ore.

Background

Vermiculite, which is used in lawn and garden products, various building materials, and in insulation, was mined and processed in Libby, MT, from the early 1920s until 1990. Although most vermiculite products pose no health problem, the vermiculite ore from the Libby mine was contaminated with asbestos. Studies have shown that people who worked in the mine and processing facilities and people who lived in the community were exposed to asbestos-contaminated vermiculite during the time the facilities were in operation. Prolonged exposure to asbestos can cause very serious health problems, including asbestosis and lung cancer.

Records show that the vermiculite ore from Libby was shipped to locations around the U.S.

Former workers and people around these sites where the vermiculite was shipped may have been exposed to asbestos in ways such as handling of the ore, playing in the by-products, or workers taking home dust on their clothes.

The National Asbestos Exposure Review will work with other federal, state, and local environmental and public health agencies to:

- Evaluate selected sites to identify past and present exposure pathways (ways in which the community could have been exposed to asbestos from contaminated vermiculite).
- Evaluate exposure pathways at selected sites to determine 1) if there is a significant hazard to public health and 2) what further actions are necessary to protect public health.

- Formulate a plan for determining additional public health actions at sites not considered in the initial evaluation.

Initial Site Selection Criteria

Based upon data that was collected by the U.S. Environmental Protection Agency (EPA), ATSDR selected 30 sites for the initial review. These sites were selected if the sites met one of the following criteria:

- EPA required further action at the site based upon contamination in place, or

The site was an exfoliation facility that processed more than 100,000 tons of vermiculite ore from Libby mine. Exfoliation is a type of processing that is expected to release more asbestos than other processing methods, based on studies by EPA and the National Institute of Occupational Safety and Health (NIOSH).

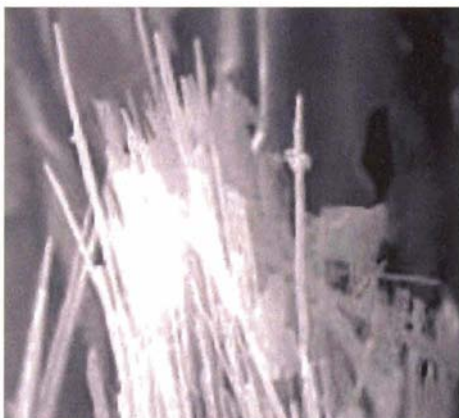
The initial list of sites may change based upon further review of the data or if new site-specific information becomes available.

ATSDR Activities

Working with federal, state and local partners, ATSDR initially will conduct or coordinate health consultations at 30 sites selected for initial review.

A health consultation provides advice on a specific public health issue related to real or possible human exposure to toxic materials. ATSDR has offered cooperative agreement states





Asbestos fibers from Libby, MT vermiculite

the opportunity to conduct health consultations for sites within their state. Several states have elected to participate in the project. Another way states may get involved in the project is by applying for a grant from ATSDR's Division of Health Studies to perform health statistics reviews around sites in their state. State activities will be coordinated through ATSDR's regional offices and technical project officers in ATSDR's Atlanta headquarters. The National Asbestos Exposure Review team, also located in Atlanta, will work with the regions and states to ensure national consistency, work with regions to perform health consultations for those sites without a state lead, and compile all findings in a comprehensive report.

For More Information

For more information about the National Asbestos Exposure Review, contact ATSDR's Information Center at 1-800-42ATSDR. Information about asbestos, vermiculite, and Libby, MT, also may be found at ATSDR's web site, www.atsdr.cdc.gov

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National Asbestos Exposure Review

Former W.R. Grace/Zonolite Company Site, Beltsville, Maryland

Site Background

The former W.R. Grace/Zonolite Company site at 12340 Conway Road in Beltsville, Maryland, operated from 1966 until the early 1990s. The plant processed vermiculite mined in Libby, Montana. This vermiculite was contaminated with asbestos.

The facility exfoliated (“popped” or expanded) vermiculite to manufacture insulation, building products, agricultural products, and fireproofing material (brand name: Monokote). Records from 1966 through 1988 indicate that over 93,000 tons of vermiculite were processed at this site.

Since 1998, Atlantic Transportation Equipment, Ltd. (ATEL) has leased the property. They operate a truck maintenance and repair shop out of the former vermiculite processing building. Land use immediately surrounding the site is primarily industrial. The closest residential area is approximately one-half mile away from the site. According to US Census data, 320 people lived within one mile of the site in 1990.

Recent EPA soil tests detected no residual Libby asbestos in on-site soils, and most of the site is covered with structures or gravel. A low level of residual Libby asbestos was detected at one location inside the facility, but no asbestos fibers were found in the air sample collected inside the former processing building.

Conclusions & Recommendations

Former Workers

- **Conclusion:** People who worked at the W.R. Grace/Zonolite facility were exposed to hazardous levels of asbestos. People who lived with former workers were probably also

exposed to hazardous levels from fibers carried home on workers’ hair and clothing.

- **Recommendation:** Identify former workers and their household contacts (people who lived with them) to evaluate potential health effects.

Current Workers

- **Conclusion:** Currently, the site poses no apparent public health hazard from asbestos. Although trace levels of Libby asbestos were detected in an isolated area inside the facility, that area is not accessible to workers. Future disturbances or renovation of the area, however, could result in hazardous exposures.
- **Recommendation:** Eliminate the possibility of exposure to the contaminated area inside the facility.

Past Community

- **Conclusion:** Although ATSDR continues to review information, currently not enough data are available to determine whether people who lived near the plant were exposed to hazardous levels of Libby asbestos.
- **Recommendation:** Review new information that becomes available to determine appropriate actions to protect public health.

Present Community

- **Conclusion:** Community exposure to Libby asbestos from plant emissions or from onsite asbestos-contaminated materials poses no public health hazard. Currently not enough data are available to determine whether individuals are being exposed to Libby asbestos from waste that may have been

used for a variety of purposes, such as fill, driveway surfacing, or soil amendments.

- **Recommendation:** Review new information that becomes available to determine appropriate actions to protect public health.

Consumer Products

- ATSDR did not evaluate products that contain Libby vermiculite, such as vermiculite attic insulation, as part of this project. Information concerning vermiculite attic insulation is available on ATSDR's Web site at www.atsdr.cdc.gov (Look under "News Spotlight") and on EPA's Web site at www.epa.gov/asbestos/insulation.html

Where can I find more information?

The public health consultation for the Beltsville site is available on the Internet at the following address:

<http://www.atsdr.cdc.gov>

The document also may be reviewed in person at the following location:

Beltsville Branch Public Library
4319 Sellman Road
Beltsville, MD 20705-2543
Telephone: (301) 937-0294

Public input and questions are encouraged. ATSDR responses will be provided in a separate document available to the public and not as an additional release of this site-specific health consultation. Comments on the health consultation must be submitted in writing by October 31, 2003. Mail comments to:

Chief, Program Evaluation, Records and
Information Services Branch, ATSDR
1600 Clifton Rd., NE (MS E-60)
Atlanta, GA 30333

The names of those who submit comments will not be printed in a public document. They are, however, subject to release through requests made under the U.S. Freedom of Information Act.

For more information, please call ATSDR toll-free at 888-422-8737 and ask to speak with Environmental Health Scientist Amanda Gonzalez or Health Communications Specialists Maria Teran-Macliver or Debra Joseph. Callers should refer to the former W.R. Grace Beltsville site.

The Agency for Toxic Substances and Disease Registry (ATSDR) is a federal public health agency of the U.S. Department of Health and Human Services. ATSDR was created by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, also called the Superfund law). This law established ATSDR as the federal health agency to deal with environmental health issues at hazardous waste sites. The agency's mission is to prevent exposure and adverse health effects from a variety of hazardous substance sources.